Other HLA-Related Activities

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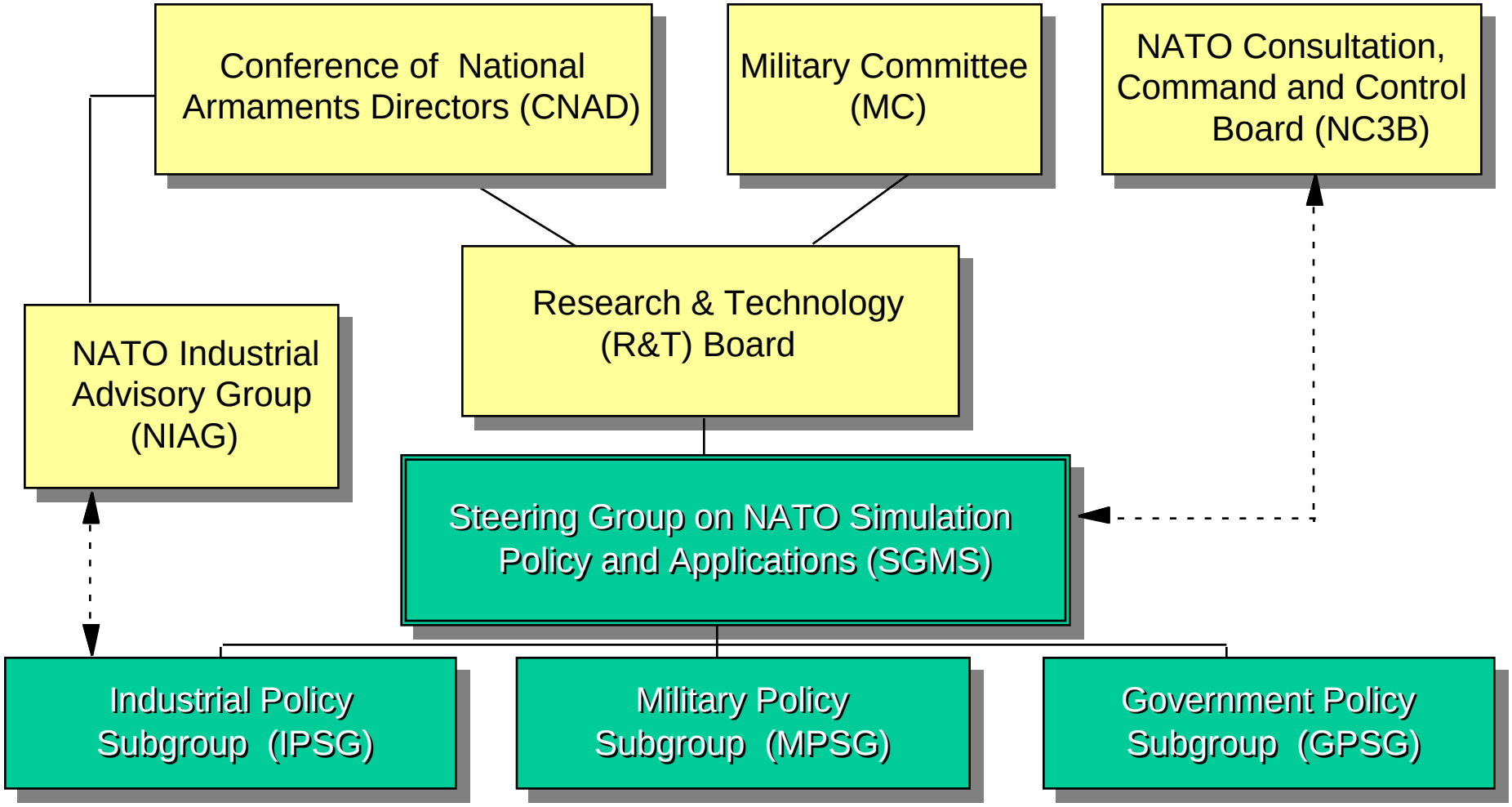
Outline

- NATO Steering Group on M&S
- 31 October EXCIMS Meeting
- JTA Update
- C4I-Sim Workshop
- I/ITSEC Events

NATO Steering Group on M&S (SGMS)

November 1996 - November 1998



NATO Update

- Steering Group on M&S (SGMS) met in Brussels on 21-23 OCT
- SGMS received reports regarding standards candidates from both the government and industry subgroups
- Both subgroups reported in favor of HLA, with some caveats (e.g., commercial RTI, compliance testing, a transition period)
- This effectively settles the issue of whether the SGMS will embrace the HLA
- However, must still move NATO Master Plan and a STANAG for HLA through the NATO bureaucracy
- Subsequent briefs to the NATO Military Committee (5 Nov) and the Conference of National Armaments Directors (6 Nov) were both well received and by all indications their support for simulation remains strong
- SGMS schedule has accelerated further

Current NATO MSMP Objectives (Version 0.1)

1. Establish a Common Technical Framework to support interoperability and reuse
   - HLA, data standards
2. Provide Common Services
   - education, repository, help desk, sharing of representational resources
3. Develop Synthetic Environments
   - cooperative, cost-effective and respectful of national prerogatives
4. Employ Synthetic Environments
   - includes resourcing and impact assessment
5. Incorporate Technological Advances
   - monitor, develop, share to facilitate incorporation

Executive Council for Modeling and Simulation (EXCIMS)

31 October EXCIMS Meeting

- **HLA Transition was main agenda item**
  - **others: OSD's review of JSIMS and the Simulation Based Acquisition**
- **HLA Transition Brief was the same one briefed at AMG-21**
- **Strongly favorable comments on HLA transition support**
  - **the availability of HLA Federate Compliance Testing, release of the OMDT, and the opening of the OML were announced that day**
- **The action plan for dealing with HLA waiver nominations was approved as proposed**
- **Continued strong support for the HLA, with several expressions of thanks for the AMG's work**
- **Some concern about the impact of HLA evolution in terms of the frequency of the changes and the cost to implement**
  - **explanation of the nature/extent of changes provided reassurance**
  - **also addressed by revised sequencing plan**
  - **will likely need to clarify policy on maintaining compliance currency**

Joint Technical Architecture (JTA)

Joint Technical Architecture Update

- **Revised draft JTA 2.0 went out for further coordination on 03 November. All comments were due by 21 November.**
- **No substantive M&S issues; editorial/administrative only**
- **Comment resolution in January and February 1998**
- **Major issues:**
  - **The JTA structure consists of a core document and 4 domain annexes (C4ISR, Weapon Systems, Sustainment, and M&S). The rules for the normalization of core, and whether the core or annexes take precedence, are currently under debate.**
  - **Air Force has objected to the inclusion of the Weapon Systems and Sustainment domains in Version 2.0**
  - **Role/placement of the Common Operating Environment (COE)**
- **Approval of JTA 2.0, incorporating M&S, is still scheduled for March 1998**

C^{4}I-Sim Workshop

C4I-Sim Workshop

- **Jointly hosted by DMSO and DISA, 24-25 November at IDA**
- **Over 70 people in attendance, including a handful from the C4I community**
- **Projects briefed included (update with final list):**
  - **STOW**
  - **ASTT/COA Assessment**
  - **NASM/AP**
  - **NSS**
  - **ACETEF**
  - **Army Experiment IV**
  - **OTH GEM**
  - **SSM**
  - **Janus Applique**
  - **WARSIM**
  - **JVL**
  - **HLA C2 Experiment**
    - **SimLink**
  - **COMPASS**
- **Many common themes, experiences, challenges and insights**
- **All briefings to be available on DMSO's web site (www.dmso.mil)**
- **Very beneficial and informative meeting, good team building**

C4I - Simulation Workshop Themes

- CONOPS and C^4I system user acceptance
- Training of C^4I system operators
- Data standardization and message translation
- What's expected of the simulations (e.g., accept C^4I inputs, provide necessary & credible outputs)
- What's expected of the C^4I systems (e.g., initialization, data collection)
- C^4I system intrusion and constraints on operator procedures
- Safety, security and contamination
- C^4I equipment availability/reliability
- Potential for reusable software/libraries to facilitate HLA-compliance and participation in multiple federations

Observations (1 of 2)

- **C^4I systems can be successfully interoperated (federated) with simulations using the HLA**
- **Including C^2 systems in a simulation federation is not procedurally different than forming a federation exclusively of simulations; both the C4I system and interface software developers (if different parties) must be actively involved in the FEDEP**
- **the FEDEP model was helpful and its continued evolution is desired**
- **Lack of training of C^4I system operators is a commonly-encountered problem**
- **Interfacing to a C^4I system only provides some of the stimuli needed to provide an effective training or mission rehearsal experience**
  - **our goal must be to interface the simulated world to the command center, not just the C^4I system**
  - **beware thinking of message translation software as a "silver bullet"**

Observations (2 of 2)

- It is unrealistic to expect to interoperate with C^4I systems without some intrusion (e.g., HMI) and some impact on operator procedures
- Lack of agreement on the form and content of C2 data exchange among both the C4I and simulation communities complicates integration and translation, and limits reuse opportunity
- many formatted messages (e.g., USMTF) aren't tightly defined
  - each federate-FOM pair requires unique mappings; an "n^2" problem
  - limits the scalability/benefit of any common interface software (e.g., MRCI)
- The simulation community desires more involvement and commitment from the C4I community; we must work together to plot an optimum course into the future
- There is interest in having additional opportunities to consider C^4I-Sim interoperation issues and share lessons-learned

HLA at the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC)

A Snapshot of HLA at I/ITSEC

- 12 HLA-related papers
- Extensive reference to HLA across I/ITSEC
- Some working examples of HLA capabilities on the exhibit floor
  - DMSO: Eagle/MCS/Comm Effects Server federation, AEgis OMDT, OM Library , HLA Compliance Testing, , Reality-by-Design's "Test Drive the HLA"
  - NAWC/TSD and Motorola booths: interlinked aircraft simulators
  - MaK's HLA-capable VRLink
  - OriginalSim's development environment
  - TASC OMDT and STOW support tools
  - STRICOM's DIS to HLA gateway
  - Technology Systems, Inc. linkage of Bradley driver, gunner and commander stations
- Two well-attended HLA-focused Special Sessions:
  - "Business Opportunities in an HLA World"
  - "Into the Future - DoD's Transition to the HLA"

Special Sessions

- **“Business Opportunities” session pointed out that the HLA has been designed and adopted to allow government to make better use of developments, processes and capabilities across a broader set of uses, and that this approach likewise brings similar benefits to the commercial market -- both US and international -- by providing a broader market for products and services, in terms of:**
- **Transition support**
  - **Runtime software development**
  - **Software to support the HLA federation development process**
  - **Systems engineering of HLA federations**
- **“DoD’s Transition to the HLA” used a modification of the HLA Transition brief presented to the AMG & EXCIMS to showcase a successful DoD-wide team effort and strong support for the HLA**
- **panel members included: Ms. Lana McGlynn, Army M&S Office; Lt Col Dean Illinger, Joint Staff J-8; Mr. Ray Miller, USAF/XOC; CAPT Jay Kistler, N-6/NAVMSMO; Dr. Mike Bailey, MCCDC/OSI; CAPT Jim Hollenbach, DMSO**